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CHIEF COUNSEL
RULES DOCKET

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Sender: "Chris Shove" <cshove@mmcable.com>

To: 9-NPRM-CMTS

Priority: Normal

Subject: NPRM Licensing and Safety Requirements for Operation of a Launch Site

899 SEP 23 P 4:13

Dear Sirs:

Following are comments regarding the notice of proposed rule making for Licensing and Safety Requirements for Operation of a Launch Site. Our concerns are stated following the statement of the FAA proposed requirement. Given the infancy of commercial space launch sites and severe international competitive pressures, a general comment is in order. The FAA should not duplicate the regulatory requirements of any federal, state, or local government. We hope the FAA adopts a spirit of ombudsmanship and intergovernmental cooperation by relying on the legal jurisdiction of other government agencies. If FAA duplicates other government regulatory mandates, it would place a substantial financial and risk burden on private investors that must pay for duplicate approvals, and will be forced to mediate among differing government agency regulations regarding the same topic.

Our specific comments are as follows.

FAA statement: Under the proposed regulations, an applicant would be required to provide the FAA with information sufficient to conduct environmental and policy reviews and determinations.

Comment: This is clearly a duplication of the rules stemming from the National Environmental Protection Act. Significant environmental issues that may be caused by private sector development of private property already come under the review of the US Environmental Protection Agency, and state agencies given authority by the EPA to conduct such reviews. In addition, several states, such as Florida, allow regional councils of governments to do such reviews. It seems that FAA's involvement in environmental reviews of non-federal activities are not only out of character of the FAA's mission but also duplicative of government agencies that have the legal authority to conduct such reviews.

FAA statement: . . . the proposed regulations would provide an applicant options for proving to the FAA that a launch could be conducted from the site without jeopardizing public health and safety. The requirement for a launch site location approval would not normally apply to an applicant who proposes to operate an existing launch point at a federal launch range...

Comment: Under the standard scientific method of positivism, it is impossible to prove anything, only to be able to reject a proposition that has been found false. Following the logic of the scientific method, the FAA is making a requirement of applicants to prove something which by use of a standard scientific method would be impossible. This concept would allow the FAA to disapprove any launch site request because the applicant could not prove it is safe.

Why are non-federal launch sites being discriminated against? The FAA is making a fallacious assumption that federal properties are inherently safer than non-federal. Can the FAA prove that? Environmental activists would certainly dispute that assumption in light of the fact that private properties are normally held to a higher level of environmental scrutiny than especially US military properties conducting national security satellite launches.

FAA statement: Unguided sub-orbital launch vehicle means a sub-orbital rocket that does not have a guidance system.

Comment: We are sure the FAA is familiar with the "Rockets for Schools" program operated in several states and sponsored by NASA and other organizations. The FAA definition of sub-orbital launch vehicle would include the vehicles used in such programs, and thus require those states, schools, and launch areas to apply for a launch site operator license. Is this the intent of the FAA? Is another definition possible that better defines the true risks of a major sub-orbital vehicle such as flight distance or amount of propellant?

FAA statement: Although a census block is smaller and therefore even more accurate, only census block centroids, rather than the more useful geographic area, are available from the U.S. Census Bureau.

Comment: This is not quite correct, US Census Bureau's TIGER files provide the data to create census block polygons (areas). In addition, the Public Law 94 (PL-94) Census of Population has population data for census blocks. Also, the PL-94 data is the earliest release of official census statistics. We agree with the FAA that census block data would be more accurate, and we propose that FAA allow the use of such data to calculate populated areas. One block group may contain dozens of blocks, so the use of block data would greatly increase the accuracy of estimating populated areas. This would be especially important to launch areas that are in remote locations. Calculating populated areas by block groups may give an inaccurately high population estimate to the detriment of what could be a safe launch area and flight trajectory. Therefore, the FAA should allow the use of census block data to estimate population areas.

FAA statement: The FAA proposes for the launch site location analysis to assign a failure probability (Pf) constant of $P_f = 0.10$ for guided launch vehicles. This represents a conservative estimate of the failure percentage of current launch vehicles, since many current launch vehicles are more reliable.

Comment: For some vehicles the proposed failure probability constant is five times greater than the vehicle's historical failure rate. Why can't FAA use the actual historical failure rates of vehicles and just double them (a constant coefficient) for conservative purposes? The proposed constant creates an unfair playing field among different vehicle types by lumping them into one category. Increased reliability should be rewarded and not penalized. Is it not the goal of the FAA to increase public safety, and the FAA should thus encourage the private sector to design and operate more reliable vehicles?

FAA statement: Table B-1

Geographical Data	
Launch point geodetic latitude on the WGS-84 ellipsoidal earth model	
	Geographical surveys or Global Positioning System

Comment: Does the use of the global positioning system mean typical single GPS receiver accuracy of ± 100 meters, or differential analysis with two GPS receiver accuracy of sub-meter, or differential analysis with a GPS base station and receiver accuracy of ± 10 centimeters?

We thank you for the opportunity to comment on this notice of proposed rule

making.

Sincerely,

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